

CLAIMS

1. Support (1) for rolling cylindrical elements, this support comprising first guide means (2) capable of guiding the cylindrical elements at a height z_1 , characterised in that downstream in the direction in which the cylindrical elements roll, the said support
5 (1) comprises second guide means (6) capable of guiding the cylindrical elements at a height z_2 higher than z_1 , the friction between the said second guide means (6) and the cylindrical elements being lower than the
10 friction between the first guide means (2) and the cylindrical elements.

2. Support (1) according to claim 1, characterised in that the said second guide means (6) are capable of authorising a rotation of the cylindrical elements
15 around an axis of these cylindrical elements.

3. Support (1) according to claim 1 or 2, characterised in that the second guide means (6) comprise at least two ball bearings (8a, 8b) designed to be in contact with the said cylindrical elements.

20 4. Support (1) according to claim 3, characterised in that the said ball bearings (8a, 8b) are made of stainless steel.

5. Support (1) of claim 3 or 4, characterised in that each ball bearing (8a, 8b) rests on a number of
25 secondary balls located inside a housing (10a, 10b) holding the ball bearing (8a, 8b).

6. Support (1) according to claim 5, characterised in that the second guide means (6) comprise two ball bearings (8a, 8b) each having their housing (10a, 10b)

angled at 45° with respect to a main axis of the support, perpendicular to the direction in which the cylindrical elements roll.

7. Support (1) according to claim 6, characterised
5 in that the two ball bearings (8a, 8b) are positioned such that one of them is situated upstream of the other, in the direction in which the cylindrical elements roll.

8. Support (1) according to any of the previous claims, characterised in that the support (1) comprises
10 a lateral adjustment system for the assembly formed by the first (2) and the second (6) guide means, as well as a vertical adjustment system for this same assembly formed by the first (2) and the second (6) guide means.

9. Support (1) according to any of the previous
15 claims, characterised in that the support (1) comprises means capable of adjusting the difference between the height z_1 and the height z_2 .

10. Support (1) according to any of the previous claims, characterised in that the difference between
20 the height z_1 and the height z_2 is approximately 0.5 mm.

11. Support (1) according to any of the previous claims, characterised in that the first guide means (2) comprise a Vee shaped roller (4).

12. Cylindrical element transport device,
25 characterised in that it comprises at least one support (1) according to any of claims 1 to 11, each support (1) being capable of authorising the rolling of the said cylindrical elements.

13. Method of transporting cylindrical elements on
30 at least one support (1), according to any of claims 1 to 11, characterised in that the cylindrical elements,

when they pass on each support (1), undergo the following steps:

- primary guiding with the aid of first guide means (2),
- 5 - secondary guiding substituting the primary guiding with the aid of second guide means (6), the friction resulting from the secondary guiding being lower than the friction resulting from the primary guiding.